



# M E R C U R Y FACT Sheet

Indiana Department of Environmental Management



Q

What is mercury?

A

Mercury is a versatile, volatile and variable element. It is a heavy metal. And it can be gas, liquid or solid. Mercury is found in rocks, soil, air and living organisms. Properties of mercury include high conductivity and liquidity at room temperature. These properties make mercury a useful component in electrical switches, including thermostats. Mercury is also used in dental amalgams, thermometers, lighting, electrical equipment, laboratorial chemicals and pharmaceuticals.

Q

Why be concerned?

A

Although mercury can be useful in many applications, it can also harm the environment. Bacteria and other processes in lakes and rivers convert mercury into methylmercury, which fish acquire from the water and food they eat. Methylmercury builds up in fish tissue and are carried up the food chain to humans. Mercury contamination can affect the human central nervous system, kidneys and liver. Fetuses and children are the most sensitive to mercury toxicity.

Mercury becomes airborne when coal is burned for fuel or when mercury-containing wastes are incinerated. Fossil fuel (coal) combustion is the primary source of mercury in Indiana. However, without this fuel, many of Indiana's vital manufacturing industries and power plants would not be able to operate. The Indiana Department of Environmental Management and U.S. Environmental Protection Agency are currently working together to find pollution prevention opportunities for fossil fuel combustion.

Meanwhile, IDEM is reaching out to industries where mercury substitutions are proven effective and easily attainable. The agency sent letters and made visits to dental and medical offices, hospitals and manufacturers that use mercury in their processes, and to heating, ventilation, air conditioning, and refrigeration businesses. Through the *Mercury Thermostat Reduction and Recycling Pledge Program*, IDEM is now working with the HVAC-R industry to address common uses of mercury-containing products.

Due to mercury contamination, the State Department of Health, Indiana Department of Natural Resources and IDEM issued a fish consumption advisory for parts of Indiana in 2001. The advisory is based on the latest scientific methods for determining health risk, and provides guidelines on how often fish from certain lakes and rivers can be safely eaten.



**Q** What if you work with items that contain mercury?

**A** If you work with mercury-containing items, IDEM suggests reducing the use of these products and recycling old mercury-containing items. Environmental concerns have always existed regarding the use of mercury, but there were not many alternatives until recently. The following table lists alternatives to mercury-containing products as well as recycling opportunities.



**!** Common Uses of Mercury and Alternatives

MERCURY-CONTAINING PRODUCTS • POLLUTION PREVENTION AND RECYCLING OPPORTUNITIES


Mercury Thermostats

-  Replace with electronic thermostats
-  Recycle old thermostats

Mercury Thermometers



-  Replace with digital thermometers or alcohol (red bulb) thermometers
-  Recycle old thermometers

Dental Amalgam Filling\*



-  Ask your dentist for a substitute

Mercury-Containing Switches

*(such as motion-sensors)*

-  Replace with mechanical or electric switches
-  Recycle old switches

Batteries\*\*

-  Replace with mercury-free batteries
-  Recycle old batteries

\* The primary concern is the disposal of mercury and not the exposure resulting from amalgam.  
\*\* Most batteries are now mercury-free, but some types of batteries still contain mercury.

IDEM Mercury Contacts

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